CLAIMS

1. A Softswitch for a next generation network, characterized in that said Softswitch includes:

a network adaptive device for implementing the communication between the Softswitch and other devices in said network, as well as receiving call requests;

a call server for determining whether the call received by said network adaptive device is a common call or a call of the intelligent network and processing the common call; and

an INAP (CAP、MAP) adapter for responding the call of the intelligent network and encoding/decoding the INAP message.

2. The Softswitch according to claim 1, characterized in that said Softswitch further includes:

a resource manager for managing intelligent peripherals, performing audio interaction with a user through the call server, and transmitting the user input data to said INAP adapter.

3. The Softswitch according to claim 1, characterized in that said Softswitch further includes:

a signaling transmitting adapter for transferring signaling data through IP packets; and

a media gateway control adapter for transmitting data between said Softswitch and one or more media gateways in said network.

4. The Softswitch according to claim 3, characterized in that the media gateway control adapter uses one or more of the following protocols: H.323, MGCP, H.248 and SIP.

5. The Softswitch according to claim 1, characterized in that said network adaptive device includes:

an INAP/TCP interface for directly transmitting an expanded INAP encoded message through TCP/IP protocol.

6. A system for implementing an intelligent network, including:

a Softswitch equipment, comprising:

a network adaptive device for implementing the communication between the Softswitch and other devices in said network, as well as receiving the call request;

a call server for determining whether the call received by said network adaptive device is a common call or a call of the intelligent network and processing the common call;

an INAP adapter for responding the call of the intelligent network and encoding/decoding the INAP message;

at least one SCP for executing intelligent service logics and producing INAP messages; and

an IP network for connecting said Softswitch and the SCP.

7. The system according to claim 6, characterized in that said system further includes: intelligent peripherals for providing special resources required by the intelligent network services; and

Said Softswitch further includes: a resource manager for managing said intelligent peripherals, performing audio interaction with a user through the call server, and transmitting the user input data to said INAP adapter.

8. The system according to claim 6, characterized in that said system further includes:

a signaling gateway, connecting to said IP network at its one side and to a PSTN network at another side, for transferring signaling data between said IP network and said PSTN network;

a media gateway, connecting to said IP network at its one side and to a PSTN network at another side, for transferring media data between said IP network and said PSTN network;

said Softswitch further includes:

a signaling transmitting adapter for transferring signaling data through IP packets; and

a media gateway control adapter for transmitting data between said Softswitch and one or more media gateways in said network.

9. A method for a PSTN telephone to access into an intelligent network service in a next

generation network, herein there is at least one SCP in said next generation network for executing the intelligent service logics, said method includes:

issuing a call request from said PSTN telephone through dialing an accessing code;

transforming said call request issued by said PSTN telephone into a protocol format suitable for the next generation network;

determining whether said call request is an intelligent network service provided by the SCP or not;

if said call request is an intelligent network service provided by the SCP, encoding said call request into an INAP message and transferring the message to said SCP; and

responding said INAP message and processing said call request by said SCP.

10. The method according to claim 9, characterized in that said step for transforming the call request includes: transforming the call request in SS7 signaling format into a format suitable for transmitting on the IP network.

11. The method according to claim 10, characterized in that said step for transforming the call request includes: transforming the call request in SS7 signaling format into the SIGTRAN protocol format or H.248 protocol format.

12. The method according to claim 9, characterized in that said step for determining includes: searching a database that stores the accessing codes of the intelligent network, determining whether the accessing code of the call request of said PSTN telephone is an accessing code of the intelligent network.

13. A method for a telephone in a next generation network to access into an intelligent network service in a PSTN network, herein there is at least one SCP in said PSTN network for executing the intelligent service logics, said method includes:

issuing a call request from said telephone in said next generation network through dialing an accessing code;

determining whether said call request is an intelligent network service provided by the SCP or not;

if said call request is an intelligent network service provided by the SCP, encoding said call request into an INAP message;

transforming said INAP message into a format suitable for the PSTN network and transferring said INAP message to said SCP; and

responding said INAP message and processing said call request by said SCP.

14. The method according to claim 13, characterized in that said step for determining includes: searching a database that stores the accessing codes of the intelligent network, determining whether the accessing code of the call request of said telephone is an accessing code of the intelligent network.

15. The method according to claim 13, characterized in that said step for transforming includes: transforming the INAP message data in IP network format into a format suitable for the PSTN network.

16. The method according to claim 13, characterized in that said step for transforming includes: transforming the INAP message data in the SIGTRAN protocol format or H.248 protocol format into the SS7 signaling format.

17. A method for a telephone in a next generation network to access into an intelligent network service in a PSTN network, herein there is at least one SCP in said PSTN network for executing the intelligent service logics, said method includes:

issuing a call request from said telephone in the next generation network through dialing an accessing code;

transforming said call request into a format suitable for the PSTN network and transferring it to the PSTN network;

determining whether said call request is an intelligent network service provided by said SCP or not;

if said call request is an intelligent network service provided by the SCP, encoding said call request into an INAP message and transferring said INAP message to said SCP; and

responding said INAP message and processing said call request by said SCP.

18. The method according to claim 17, characterized in that said step for determining includes: searching a database that stores the accessing codes of the intelligent network, determining whether the accessing code of the call request of said telephone is an

accessing code of the intelligent network.

19. The method according to claim 17, characterized in that said step for transforming includes: transforming the call request in IP network format into a format suitable for the PSTN network.

20. The method according to claim 19, characterized in that said step for transforming includes: transforming the call request in the SIGTRAN protocol format or H.248 protocol format into the SS7 signaling format.